

# Multi Audio Video Monitor

Solution to monitor video quality, audio quality and loudness. Borderless, to build video walls.

## Product information

### Product

- Software
- Hardware <sup>(1)</sup>

### Video quality metrics

- No reference
- Parametric
- Hybrid

### Audio quality metrics

- No reference
- Loudness (according to recommendations ITU BS 1770-2 and EBU R128)
- Decodability

### Input types

- File
- IP streaming <sup>(2)</sup>
- Capture card/device
- Desktop capture

### Input formats

- HEVC (H.265)
- MPEG-4/AVC (H.264)
- MPEG-2
- Uncompressed <sup>(3)</sup>
- Other encoded formats <sup>(4)</sup>

### Applications

- Live monitoring <sup>(2)</sup>
- Jerkiness monitoring
- Loudness monitoring
- Optimal bitrate determination <sup>(4)</sup>
- Video encoders and cameras benchmarking and comparison <sup>(4)</sup>
- Video processing optimization <sup>(4)</sup>

<sup>(1)</sup> Hardware (PC) may be supplied as an option

<sup>(2)</sup> For video monitoring, also see our other product Video Quality Monitor

<sup>(3)</sup> Uncompressed video must be the result of HEVC, H.264 or MPEG-2 decoding

<sup>(4)</sup> Also see our other product Video Quality Analyzer



Providing multiple audio/video TV channels/services to your customers requires monitoring multiple audio/video sources in parallel.

To permit the monitoring of multiple audio video sources in parallel and on a single machine, Multi Audio Video Monitor is here.

Multi Audio Video Monitor is a powerful software solution to measure and monitor video quality as perceived by end-users. Video Quality can also measure and monitor audio quality and audio loudness.

Multi Audio Video Monitor computes video quality using a MOS (Mean Opinion Score) scale ranging from 0 to 100.

Multi Audio Video Monitor is a very useful tool to:

- **measure and monitor in real time the quality** of a TV channel or any other audio/video service,
- **monitor the quality of audio/video coming from IP streaming or files** (measure (offline) and monitor (in real time) **audio loudness according to international recommendations**,
- **measure the impact on perceived quality of unwanted pauses (due to rebuffering)** during video playing,
- **build video walls / mosaics**.

And since Multi Audio Video Monitor does not depend on specific hardware, you can install it on any Windows™ PC. You can even run it on a laptop!

Based on an elaborate human vision model, Video Quality Monitor quickly provides accurate, detailed and repeatable measurements. Video Quality Monitor includes different video quality measurement technologies ("metrics").

The **No Reference metrics** compute video quality by exploring the decoded frames at pixel level..

Each metric computes codec-specific artifacts:

- The **No Reference MPEG-2 metric** measures blockiness visibility and blur perception,
- The **No Reference H.264 metric** measures blockiness visibility, blur perception and objects contrast,
- The **No Reference HEVC metric** measures blur perception and picture flatness,

Multi Audio Video Monitor also enables:

- measurement and monitoring of **audio quality** and **audio loudness** according to ITU BS 1770-2 and EBU R128,
- measurement and monitoring of the **impact of image freezing** (due to rebuffering) during video playing,

Take the lead in the race for quality

## Key features

### Perceived video quality measurement and bitrate measurement

Video Quality Monitor measures the perceived video quality on a scale from 0 to 100. It also measures the bitrate of any frame (instant bitrate) and the mean bitrate.

### Integrated web server and database

Video Quality Monitor saves all measured data in an integrated database and includes its own web server so you can remotely:

- consult the results from the database
- get monitoring statistics between two dates and times
- display interactive quality curves and "Quality vs. Bitrate" curves
- generate quantitative and detailed quality analysis reports
- generate mosaics and real time maps

### Loudness and audio quality measurement

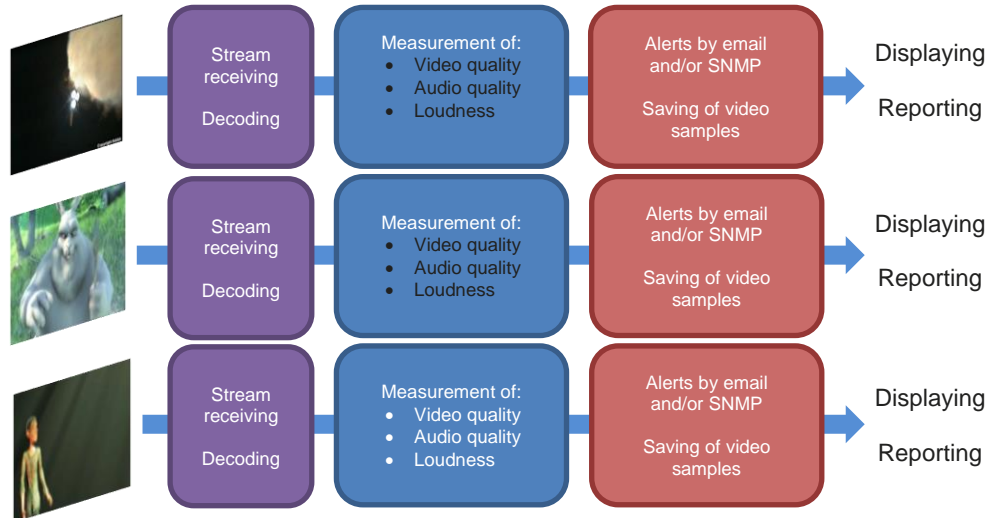
Video Quality Monitor enables to measure and monitor audio quality, audio bitrate and loudness according to international recommendations ITU BS 1770 and EBU R128.

### Many other features

Video Quality Monitor also includes many other features like a watch folder, automation features, command line usage, a magnifying glass, etc.

**Ask for a free evaluation version now!**

## Monitored TV channels or audio/video services



## Features

### Input

Compatible with all common codecs: HEVC, H.264, MPEG-2, VP9, VC-1 ... and also with uncompressed YUV (4:2:0, 4:2:2, 4:4:4)

Compatible with the most common containers (TS, AVI, MP4 ...) and with raw data

Compatible with all resolutions: SD, 720p, 1080i, 1080p, 4K, custom...

Compatible with all frame rates: 4:3, 16:9, 1.85, 2.21, 2.35, custom...

Compatible with all durations from 5 seconds to several hours

Compatible with CBR and VBR encoding

Compatible with all audio sampling rates (loudness measurement adapts itself to the sampling rate)

### Input source

File

Streaming video (UDP, RTP, HTTP, HLS)

### Measurement

Elaborate Human Vision modeling

Video quality measurement: measurement of blockiness, blur, contrast, jerkiness, computation of MOS (Mean Opinion Score) indicating the quality of the tested video

Impact of image freezing (due to rebuffering) on perceived video quality

Audio quality measurement: errors detection (silence, important distortions, signal breaks)

Loudness measurement in accordance with recommendations ITU BS 1770-2 and EBU R128

Instant audio and video bitrates measurement (for each frame)

### Results

Curves and values of MOS, bitrate, blockiness, blur, contrast, jerkiness, loudness

Useful interface: measured video, video quality curves, video bitrate curve, measured audio waveform, audio quality curve, audio loudness curves, audio bitrate curve, magnifying glass

Monitoring statistics and curves between two user-defined dates (with one-minute granularity)

Automatic reports generation (TXT, CSV, HTML)

Alerts (email, SNMP traps) if quality is too low or if decoded frames number or audio samples number are incorrect

Video samples when problems happen (saved from a few frames before the problem so you see the problem appearing in the video sample)

### Extra

Integrated HTTP server for distant results consultation and built-in database to store results

Possible command line usage (with many available arguments)

Possible sending of commands to Multi Audio Video Monitor while it is running (by calling URLs from the HTTP server)

Watch Folder: automatic processing of each new file in a folder (and its subfolders)

Real time operating mode

Can process several files or streams in parallel (designed to build video walls / mosaics)

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Perceived Video Quality Metrics

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